

REMARKS

This application has been carefully reviewed in light of the Office Action dated May 3, 2007. Claims 1 to 18, 20 and 22 are pending in the application, with Claims 19 and 21 having been cancelled. Claims 3, 4, 6 to 8, 20 and 22 have been amended, and Claims 1, 8, 18, 20 and 22 are in independent form. Reconsideration and further examination are respectfully requested.

Claim 21 was rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. Claim 21 has been cancelled without prejudice or disclaimer or subject matter, and without conceding the correctness of its rejection. Thus, the rejection is seen to be obviated.

Claims 1 to 11, 13, 15 and 18 to 22 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 6,182,069 (Niblack); and Claims 12, 14, 16 and 17 were rejected under 35 U.S.C. § 103(a) over Niblack in view of U.S. Patent No. 6,356,908 (Brown). Claims 19 and 21 have been cancelled without prejudice or disclaimer of the subject matter and without conceding the correctness of their rejection. The rejections are respectfully traversed with respect to the remaining claims.

The present invention generally concerns an image search apparatus which searches for an image. Among its many features, the present invention provides that a reduced image of a candidate image is displayed upon enlarging a partial image included in the candidate image (or that a reduced image of a determined candidate image is displayed in a plurality of patterns that includes an enlarged partial image).

For example, Figures 24C and 25C depict a representative embodiment in which a reduced image of a candidate image is displayed upon enlarging a partial image

included in the candidate image. In addition, Figures 28A to 28C depict a representative embodiment in which a reduced image of a determined candidate image is displayed in a plurality of patterns that includes an enlarged partial image. Of course, it should be noted that the scope of the claims is not limited to these representative embodiments and/or the details shown in the foregoing figures.

Referring specifically to the claims, independent Claim 1 is directed to an image search apparatus which searches for an image by using image storage means for storing a plurality of images, region information storage means for storing partial images included in the respective images stored in the image storage means in correspondence with the respective images, and region feature storage means for storing features of the partial images stored in the region information storage means in correspondence with the partial images. The apparatus comprises image feature designation means for designating a feature of a search target image. The apparatus also comprises candidate image determination means for searching features of partial images in the region feature storage means on the basis of the feature of the image which is designated by the image feature designation means, and determining an image which is made to correspond to a partial image obtained on the basis of a search result as a candidate image from the images stored in the image storage means. In addition, the apparatus comprises search result display means for displaying a reduced image of the candidate image determined by the candidate image determination means. The search result display means displays a reduced image of the candidate image upon enlarging the partial image included in the candidate image.

Independent Claims 18 and 22 are respectively directed to a method and a computer readable recording medium which are seen to generally correspond with Claim 1.

Independent Claim 8 is directed to an image search apparatus which searches for an image by using image storage means for storing a plurality of images, region information storage means for storing partial images included in the respective images stored in the image storage means in correspondence with the respective images, and region feature storage means for storing features of the partial images stored in the region information storage means in correspondence with the partial images. The apparatus comprises image feature designation means for designating a feature of a search target image. The apparatus also comprises candidate image determination means for searching features of partial images in the region feature storage means on the basis of the feature of the image which is designated by the image feature designation means, and determining an image which is made to correspond to a partial image obtained on the basis of a search result as a candidate image from the images stored in the image storage means. In addition, the apparatus comprises search result display means for displaying a reduced image of the candidate image determined by the candidate image determination means in a plurality of patterns that includes an enlarged partial image.

Independent Claim 20 is directed to a method which is seen to generally correspond with Claim 8.

The applied art is not seen to disclose or to suggest the features of the invention of the subject application. In particular, Niblack and Brown are not seen to disclose or suggest at least the feature that a reduced image of a candidate image is displayed upon enlarging a partial image included in the candidate image (or that a reduced image of a determined candidate image is displayed in a plurality of patterns that includes an enlarged partial image).

As understood by Applicant, Niblack discloses that query results are included in a Query Result window 200 which includes at least three columns. The first column (LT_THUMB) includes a thumbnail for a complete image. The second column (LT_MASK) shows a selected sub-area of the image with one or more mask outlines. The third column 202 illustrates graphically the composite distance of an image from the input query. See Niblack, column 10, lines 17 to 25.

However, Niblack is not seen to disclose or suggest that a reduced image of a candidate image is displayed upon enlarging a partial image included in the candidate image (or that a reduced image of a determined candidate image is displayed in a plurality of patterns that includes an enlarged partial image).

In addition, Brown has been reviewed and is not seen to compensate for the deficiencies of Niblack.


Accordingly, based on the foregoing amendments and remarks, independent Claims 1, 8, 18, 20 and 22 are believed to be allowable over the applied references.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


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